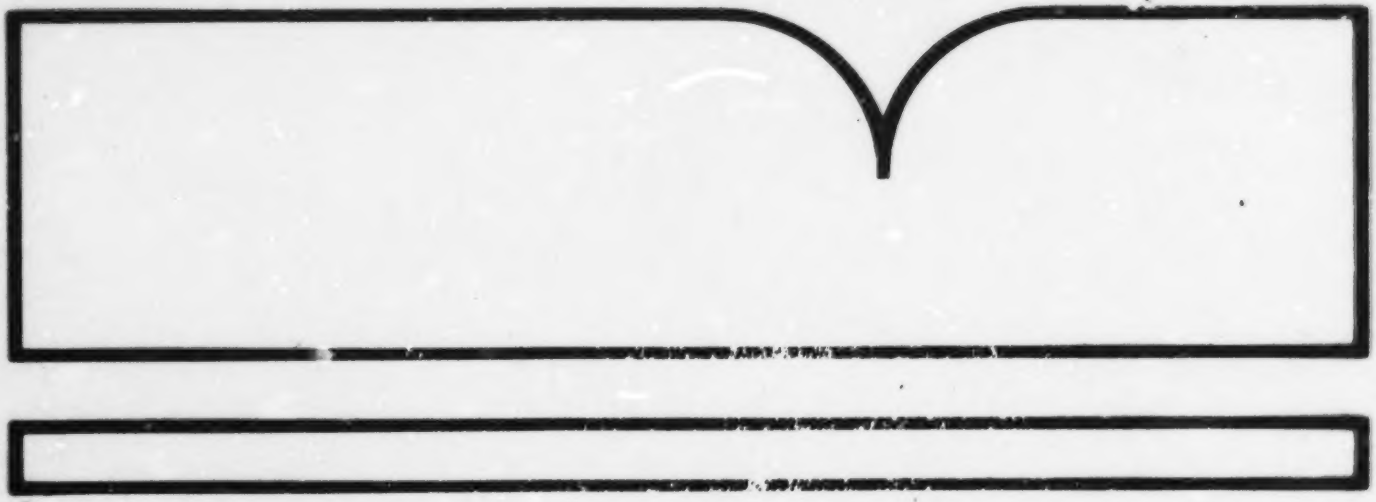
PB83-251009

Performance Specifications for Continuous Monitoring of Total Reduced Sulfur Emissions (Proposed July 20, 1981, 46 FR 37287) Summary of Comments and Responses

(U.S.) Environmental Protection Agency
Research Triangle Park, NC

Jul 83



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TECHNICAL REPORT DATA
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1. REPORT NO.	2.	3. RECIPIENT'S ACCESSION NO.
EPA-450/3-82-018		PB83 251009

4. TITLE AND SUBTITLE	5. REPORT DATE
Performance Specifications for Continuous Monitoring of Total Reduced Sulfur Emissions Summary of Comments and Responses	July 1983
	6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) Emission Standards and Engineering Division	8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Emission Measurement Branch (MD-19) Emission Standards and Engineering Division U.S. Environmental Protection Agency Research Triangle Park, N.C. 27711	10. PROGRAM ELEMENT NO.
	11. CONTRACT/GRANT NO.
12. SPONSORING AGENCY NAME AND ADDRESS DAA for Air Quality Planning and Standards (MD-10) Office of Air, Noise, and Radiation U.S. Environmental Protection Agency Research Triangle Park, N.C. 27711	13. TYPE OF REPORT AND PERIOD COVERED
	14. SPONSORING AGENCY CODE EPA/200/04

15. SUPPLEMENTARY NOTES

16. ABSTRACT

This document addresses the public comments submitted after proposal of the performance specification in the Federal Register. Changes made to the methods as a result of these comments are included. This document serves as the basis for the revisions which have been made to the performance specification between proposal and promulgation.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
		13B

18. DISTRIBUTION STATEMENT	19. SECURITY CLASS *(This Report)*	21. NO. OF PAGES
Release Unlimited	Unclassified	10
	20. SECURITY CLASS *(This page)*	22. PRICE
	Unclassified	

PB83-251009

United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

EPA-450/3-82-018
July 1983

Air

EPA

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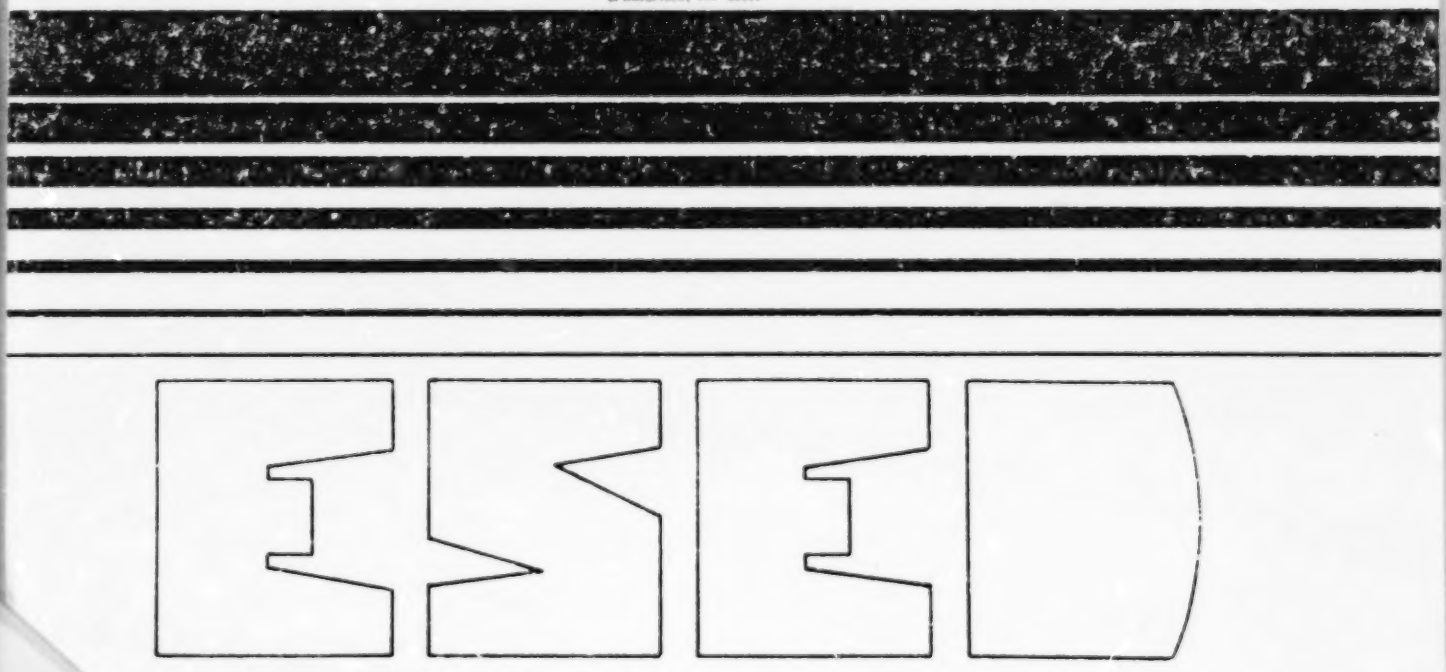

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Emission Measurement Branch

Emission Standards and Engineering Division

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air, Noise, and Radiation
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

July 1983

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CHAPTER 1

INTRODUCTION

On July 20, 1981, the U.S. Environmental Protection Agency (EPA) published Performance Specification 5, "Specifications and Test Procedures for TRS Continuous Emission Monitoring Systems in Stationary Sources," in the Federal Register (46 FR 37287). The performance specification (PS) is to be used for evaluating the acceptability of total reduced sulfur (TRS) continuous monitors as specified in the applicable regulations. The specification was proposed under the authority of Sections 111, 114, and 301(a) of the Clean Air Act, as amended.

Public comments were solicited at the time of proposal. An invitation to request a public hearing was issued to provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed PS, but no person desired to make an oral presentation. The public comment period was from July 20, 1981, to September 20, 1981.

Letters concerning issues relative to the proposed PS were received from six commenters. A detailed discussion of these comments and responses is summarized in this document. The summary of comments and responses serves as the basis for the revisions which have been made to the PS between proposal and promulgation.

CHAPTER 2

SUMMARY OF CHANGES SINCE PROPOSAL

1. Section 1.1. Sources shall be allowed 1 year after the promulgation date to install and operate monitors.

2. Section 2.1. The detector span level has been widened to allow a setting between 1.5 times the pollutant concentration corresponding to the emission standard level and the span value.

3. Section 2.2. The allowable detector calibration drift has been changed to 5 percent for 6 out of 7 test days.

4. Section 3.2. For Method 16A, a sample is collected for at least 1 hour.

CHAPTER 3

SUMMARY OF COMMENTS AND RESPONSES

PERFORMANCE SPECIFICATION 5

1. Commenters D-1, D-3, D-5

Comment: We request an additional 30 to 180-day comment period to enable affected sources to complete data gathering and analysis efforts that are now underway. This will allow us to evaluate O_2 monitors and to determine the impact of this regulation on currently used monitors.

Response: Additional time has been given to complete this data gathering effort. The comment period will not be extended; however, subsequent data submitted to the Agency will be considered in revising the proposed PS.

2. Commenters D-1, D-2, D-4, D-5

Comment: The National Council for Air and Stream Improvement technical document used to establish the calibration drift (CD) does not support the proposed not-to-exceed 3 percent specification. This document deals primarily with the Barton titration system, which according to the proposed 3 percent limit, would not pass. A specification which is based upon not-to-exceed criteria but does not take into account the distribution of the population around the mean is not technically sound. We feel the 3 percent limit is too stringent and suggest a larger number be chosen or a value based on a 24-hour arithmetic mean plus the 95 percent confidence interval. Since the high level drift calculation includes the zero drift, the CD should be defined

separately for high- and low-level drift. A low drift of 3 percent and a high-level drift of 5 percent span can be supported by available data.

Response: The CD limit has been changed from not exceeding 3 percent to not exceeding 5 percent for 6 out of 7 test days. This value is supported by the background technical document as well as data submitted by sources on currently used monitors. The Agency does not feel the specifying of a separate low-level test is warranted.

3. Commenters D-1, D-2, D-4, D-5

Comment: Sources should be allowed to install monitors 1 year to 18 months after promulgation, instead of proposal. It is not appropriate nor reasonable to require the installation of expensive equipment before publication of the final standard. This additional time is needed to survey available monitors, since it appears the Barton system may not pass the CD test.

Response: Sources will be allowed 1 year beyond the promulgation date to purchase, install, and operate monitors. This time seems reasonable since operators had the opportunity to review available monitors during the period between proposal and promulgation. The corrected CD requirement does not preclude use of the Barton system.

4. Commenter D-1

Comment: Since most commercially available systems provide little flexibility in adjusting the detector span, the span level should be from 70 to 120 percent of span value instead of 90 to 100 percent. The 70 percent level would be much higher than most standards.

Response: The allowable span level has been widened to a level between 1.5 times the concentration of the applicable emission standard and the specified span value of 30 ppm.

5. Commenters D-2, D-3

Comment: In Section 2.2, the applicability of the CD is unclear. Is it for the entire system, the instrumental part, or just the detector?

Response: Section 2.2 has been clarified by stating the applicability of the CD to the detector.

6. Commenter D-2

Comment: The preamble to the proposed specifications state the procurement costs of monitors at $15,000 to $30,000. Actual cost estimates place the figures around $50,000 to $100,000.

Response: Current manufacturer's estimates place the procurement and installation costs between $20,000 and $80,000.

7. Commenter D-2

Comment: To eliminate confusion, it should be explicitly stated, either in the preamble or rule, that instrument response time is not being specified.

Response: The preamble will state that no response time is specified.

8. Commenter D-2

Comment: The relative accuracy (RA) language of the proposed specifications contradicts that used in the guideline document. The guideline document should be corrected to state that the RA shall be no greater than 20 percent of the mean value of the reference method (RM), or 10 percent of the applicable standard, whichever is greater, not less.

Response: This error in the guideline document has been corrected.

9. Commenter D-6

Comment: Paragraph 60.13(b) of the regulations should be modified to clarify the operational period and verification of the operational status. We also suggest the following addition to 60.13(b)(1): " . . . requirements in Appendix B after the monitoring system has been in place and operated in a normal stabilized mode for a period of at least 1 month."

Response: Section 60.13(b) is being revised along with PS 2 and 3 to state the following: "All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device."

10. Commenter D-6

Comment: The proposed PS 5 refers to several paragraphs in PS 2. Since PS 5 refers to PS 2 in such depth, we suggest PS 5 be rewritten in the format of PS 2. Specifically, we recommend the following changes for uniformity.

a. Section 1, Applicability and Principle, should be changed to Principle and Applicability. Sections 1.1 and 1.2 should be changed accordingly.

b. Section 2.1, Instrument Zero and Span, should be listed as Section 3.2, Span.

c. Section 2.2, Calibration Drift, should be listed as Section 3.6, Calibration Drift.

d. Section 2.3, CEMS Relative Accuracy, should be listed as Section 3.3, Accuracy (Relative).

e. Section 3, Relative Accuracy Test Procedure, should be listed as Section 6.0, Performance Specification Test Procedures.

Response: The proposed PS 5 is based upon a revised PS 2 (proposed January 26, 1981). It appears the above comments are based upon the original PS 2 and not the revised version. The proposed PS 5 reflects the noted uniformity to revised PS 2.

11. Commenter D-6

Comment: Paragraph 3.1, Sampling Strategy for RM Tests, which refers to PS 2, Sections 7.1, 7.2, 7.3, and 7.5, should be changed to reflect only 7.1 and 7.2. The PS 2 has no Sections 7.3 and 7.5.

Response: See response to Comment 10.

12. Commenter D-6

Comment: An alternative procedure to performing analysis of the calibration gases by RM tests should be included. One alternative is to use EPA Protocol 1 gases.

Response: Protocol 1 gases are available for criteria pollutants only. For H_2S, a standard reference material gas certified by the National Bureau of Standards (NBS) is needed. Since NBS does not now have a standard reference H_2S cylinder gas and probably will not in the near future, the analysis of calibration gas shall be by RM test.

Table 1. LIST OF COMMENTERS

Docket Number A-80-57

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